

AGENDA ITEM # 9.F  
DATE: 1-12-04  
COAC NUMBER: 03-1925

**CITY OF GOODYEAR  
CITY COUNCIL ACTION FORM**

**SUBJECT:** Hot Water Conservation Incentive

**STAFF PRESENTER:** Steve Burger  
**COMPANY**  
**CONTACT:** N/A

**RECOMMENDATION:**

Council adopt Ordinance #03-882 amending Section 9-12-5 of Article 9-12 of Chapter 9 of the City of Goodyear Code to provide for a one-time rebate of \$100.00 upon verification and approval of the installation of a city-approved hot water conservation device categorized as a hot water recirculating pump or point-of-service instant hot water heater in an existing, occupied residential occupancy.

**COMMUNITY BENEFIT:**

With the passage of Ordinance # 02-833 on November 25, 2002 which required an electrical receptacle under each bathroom and kitchen sink to allow for the installation and operation of a point-of-service hot water recirculating pump in all new homes, the community has become more aware of such water conservation devices. It was suggested at this meeting that staff prepare information for a monetary incentive which may encourage existing homeowners that use water supplied by the City of Goodyear to install these or similar devices.

**DISCUSSION:**

In the Valley, most new homes are constructed with the water heater located in the garage. While this is, in many ways, energy efficient and economical it usually also results in some bathrooms and kitchen sinks being located at remote locations within the dwelling. This causes a time lag from the time the water outlet is opened until the time hot water arrives at the fixture for usage. This time lag results in potable water being discharged down the drain. (Showerheads and faucets are designed to discharge a maximum of 2.50 - 2.75 gallons per minute. 1-3 minutes lag time at 2.75 gallons per minute equals 2.75-8.25 gallons with the average being 5.5 gallons.)

If a hot water recirculating pump is installed and utilized and if the average of three persons per household is used to determine savings and each person takes one shower per day, roughly 6022.5 gallons (5.5 gallons x 3 persons x 365 days) would be saved per year. At the rough average cost of \$2.40 per 1000 gallons of water, this family's savings in water costs for showers would be approximately \$14.45 each year.

Most under-the-sink water heaters and hot water recirculating pumps require an electrical receptacle for operation. To install this outlet and to purchase one of these appliances typically costs between \$250-\$350 if installed by the homeowner and \$400-\$500 if it is installed by a licensed contractor. To install the electrical

receptacle, a simple over-the-counter electrical permit is required at a cost of approximately \$32. It is recommended that this permit fee be waived. The city would require documentation to verify that the appliance is new and that it bears the seal of a nationally recognized testing facility such as Underwriters Laboratories. If no electrical work were being installed, a no-fee permit would still be required to track and document any installations.

In 1990, the City Council took similar measures to provide economic incentives to conserve water by passing Ordinance 90-298, which allowed for a \$50 rebate when a water-saving toilet was installed in an existing building. (This section will remain unchanged.) If a similar incentive were provided for the proper installation of hot water conserving appliances, it may encourage more homeowners to install such devices. Said rebate would only be valid for City of Goodyear utility users and would sunset on December 31, 2005.

Based on a household of three and one shower per day per person, the City savings in water and wastewater costs is estimated to be \$78 per year (without inflation) if the pump is installed and used on a daily basis. This savings includes \$44 in savings in wastewater capacity per household and \$15 in water production costs. The remaining savings would be attributed to operational and maintenance costs. A suggested rebate amount could be \$100 based on what the City of Peoria is offering.

At the August 11, 2003 Council Work Shop Session it was suggested that staff contact the cities of Tucson and Marana since it was thought that these two municipalities had water conservation incentives. Tucson has an extensive water conservation program but, according to the Building Official, they have no rebates other than for the change out of a low-flow toilet. Marana offers a \$500 discount off of the permit fee for a new single family home and a no-cost permit fee for existing homes that install energy and water conserving devices such as solar water heating, water harvesting systems, graywater irrigation systems and recirculating pumps. Marana has a three-year sunset and a \$300,000 maximum credit cap. The City of Peoria also offers a \$100 credit rebate for the installation of a recirculating pump. This \$100 credit is applied to water bills over a three-month period and a first come, first served fund of \$40,000 has been established. The Program was started on July 1, 2003 and as of October 1 there have been approximately 117 applicants. If it can be assumed that Goodyear will process approximately 12 requests a month, that would equal 144 per year at \$100 each which would amount to \$14,400. Rebate funds would come from the Water Fund Balance.

**Pros:**

May encourage water conservation

Shows that the City is serious about water conservation

The City would save money by not having to pump or treat as much water

**Cons:**

City employees are not able to recommend any specific brands of pumps/heaters and this has upset homeowners

LPSCO and Arizona Water customers in Goodyear may feel they should be included in the program

Cost of inspection time would not be reimbursed if no permit fees were required

**FISCAL IMPACT:**

A City Building Inspector would need to visit the site to determine if the installation qualifies for the rebate. This would essentially involve the issuance of a "no fee" permit to track the installation. Average amount of time needed to issue the permit, receive an inspection request, conduct the inspection, including driving time, and entering the results into the computer would be approximately 45 minutes. The total time required for the Finance Department to process a rebate check would be approximately 10 minutes. If no permit fee were collected, the City would not be reimbursed for services rendered.

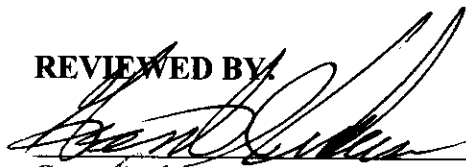
Since installing one of these devices will save a finite amount of water, the City's water reclamation system would benefit by the reduction of water entering the system that needed to be treated. Although one water usage scenario has been presented in this COAC, it would be nearly impossible to determine the actual amount of savings from this program due to the many variables involved.

The cost of this program would need to be monitored to determine the impact on the coming fiscal years. If this program were implemented in January 2004 there would only be six months remaining in the 03-04 Fiscal Year. Approximate projections during this period could be determined and used in future years until, and if, the program is sunsetted in December of 2005.


**Community Development Impact**

See "Cons" above.

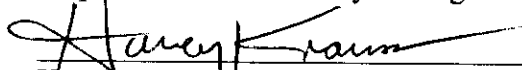
**REVIEWED BY:**

  
Grant Anderson – Deputy City Manager

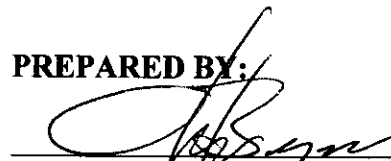
  
Jim Qeser – City Attorney

  
Larry Price – Finance Director

  
Stephen Cleveland – City Manager

  
Harvey Krauss, Community Development Director

**PREPARED BY:**

  
Steve Burger, Chief Building Official

## **ORDINANCE NO. 03-882**

**AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF GOODYEAR, MARICOPA COUNTY, ARIZONA, AMENDING SECTION 9-12-5 OF ARTICLE 9-12 OF CHAPTER 9 OF THE CITY OF GOODYEAR CODE WHICH PROVIDES FOR A REBATE OF \$100 UPON VERIFICATION AND APPROVAL OF THE INSTALLATION OF A CITY-APPROVED HOT WATER CONSERVATION DEVICE CATEGORIZED AS A HOT WATER RECIRCULATING PUMP OR POINT-OF-SERVICE INSTANT HOT WATER HEATER IN AN EXISTING, OCCUPIED RESIDENTIAL OCCUPANCY; PROVIDING FOR SEPARABILITY AND PROVIDING FOR AN EFFECTIVE DATE.**

WHEREAS, the City of Goodyear is concerned about water conservation; and

WHEREAS, it has been determined that several gallons of water are discharged down the drain prior to hot water arriving at a fixture; and

WHEREAS, the installation of a hot water recirculating pump or point-of-service instant hot water heater in a building would, if utilized, effectively reduce such discharge of water; and

WHEREAS, the Mayor and Council desire to provide an incentive for owners of existing residential buildings to install hot water recirculating pumps or point-of-service instant hot water heaters;

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF GOODYEAR, ARIZONA, AS FOLLOWS:

### **SECTION 1: AMENDMENT OF SECTION 9-12-5 OF ARTICLE 9-12 OF THE GOODYEAR CITY CODE:**

Section 9-12-5 of Article 9-12 of Chapter 9 of the Goodyear City Code is herewith amended to read as follows:

“Section 9-12-5      Installation Rebates

Installation of a low flow toilet in any building existing on May 22, 1990 may qualify the owner of such building for the incentive provided in this section. All such low flow toilets shall meet the criteria described in subsection E of Section 9-12-3. Upon presentation by the owner of the building in which said low flow toilet is installed of a purchase sales slip for such low flow toilet and such evidence as may be reasonably required by the chief building official to evidence proof of installation thereof, the city shall pay the sum of \$50.00 to the owner or occupant of the building installing the low flow toilet. The chief building official shall have the right to require a visual verification of the installation of the low flow toilet by the Building Safety Division of the Community Development Department.

Installation of a hot water recirculating pump or point-of-service instant hot water heater in any existing residential building may qualify the owner of such building for the incentive provided in this section. Upon presentation by the owner-occupant or landlord of the building in which said hot water recirculating pump or point-of-service instant hot water heater is installed of a purchase sales slip for such hot water recirculating pump or point-of-service instant hot water heater and such evidence as may be reasonably required by the chief building official to evidence proof of installation thereof, which must include the obtaining of a city building permit, the city shall pay the sum of \$100.00 to the owner or occupant of the building installing the hot water recirculating pump or point-of-service instant hot water heater. The chief building official shall have the right to require a visual verification of the installation of the hot water recirculating pump or point-of service instant hot water heater by the Building Safety Division of the Community Development Department. Building permit fees directly relating to the installation of these devices shall be waived.

Only one such rebate shall be issued to each building. All work must be performed by the owner-occupant or landlord of the building or by a properly licensed Arizona contractor authorized by the owner-occupant or landlord, as applicable. All fixtures and appliances must be new and bear the label of a nationally recognized testing laboratory and be properly installed.

The rebate provisions established in this section shall only be applicable to buildings receiving water and sewer services from the City of Goodyear and shall expire on December 31, 2005. Only owner-occupants or landlords are eligible to receive the rebate. The rebate shall be disbursed by the city within a reasonable time after city verification that the installation is eligible and in compliance."

## **SECTION II: SEPARABILITY.**

If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held to be invalid or unconstitutional by the decisions of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

**SECTION III: EFFECTIVE DATE.**

This Ordinance shall become effective on the date and in the manner provided by law.

PASSED AND ADOPTED by the Mayor and Common Council of the City of Goodyear, Arizona, this \_\_\_\_ day of \_\_\_\_\_, 2003.

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 2003 .

\_\_\_\_\_  
James Cavanaugh, Vice Mayor

ATTEST:

\_\_\_\_\_  
Dee Cockrum, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
James H. Oeser, City Attorney

**CERTIFICATION OF RECORDING OFFICER**

STATE OF ARIZONA     )

) ss.

County of Maricopa     )

I, the undersigned, Dee Cockrum, being the duly appointed, qualified and acting City Clerk of the City of Goodyear, Maricopa County, Arizona, certify that the foregoing Ordinance No. 03-882 is a true, correct and accurate copy of Ordinance No. 03-882, passed and adopted at a regular meeting of the Council of the City of Goodyear, Maricopa County, Arizona, held on \_\_\_\_\_ 2003, at which a quorum was present and, by a \_\_\_\_\_ vote, voted in favor of said ordinance.

Given under my hand and sealed this \_\_\_\_\_, 2003.

seal

\_\_\_\_\_  
City Clerk